

Hamilton County Bridge
Greenfield Pike Southeast of Noblesville
Noblesville (vicinity)
Hamilton County
Indiana

HAER No. IN-52

HAER
IND,
29-NOBLESVILLE
6-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

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IND
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HISTORIC AMERICAN ENGINEERING RECORD

HAMILTON COUNTY BRIDGE #218
(THE STONEY CREEK BRIDGE)

HAER NO. IN-52

Location: Noblesville, Indiana. Greenfield Pike
over Stoney Creek

Noblesville Quadrangle (USGS 7.5 minute
series) T. 18 N., R. 5 E., Sect. 7,
NE $\frac{1}{4}$, NW $\frac{1}{4}$, NW $\frac{1}{4}$, NE $\frac{1}{4}$

Date of Construction: 1928 (repaired in 1955 by the Indiana
State Highway Commission, now the Indiana
Department of Highways)

Present Owner: Hamilton County
Hamilton County Courthouse
Noblesville, Indiana 46060

Present Use: Closed to all traffic since March 12, 1981

Significance: One of three extant Baltimore (Petit)
Through Steel Trusses in Indiana.

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The Stoney Creek Bridge is located on the southeast periphery of Noblesville in Hamilton County, Indiana. It carries Greenfield Pike over Stoney Creek, a first-order tributary to the West Fork of the White River (see pages 13 through 15). Construction of the bridge was completed in March of 1928.

The bridge is a rivet-connected Baltimore (Petit) Through Steel Truss which, in essence, is a Pratt truss with sub-ties /1/. It consists of a single span 130 feet in length, with an out-to-out length of 132 feet 8 inches. The original plans for the bridge (see attached reproduction), consisting of one 21"x36" linen sheet on file in the county surveyor's office, indicate that the truss consisted of twelve panels at ten feet, ten inches each. From the centerline of one truss to the other is nineteen feet, three inches. The clear roadway width is seventeen feet, eight inches and the vertical clearance is fourteen feet. The structure rests on concrete abutments and the truss is skewed at twenty degrees, a significant feature for a truss of this age. As designed, the deck was to consist of three layers of wood planking; a three inch thick bottom layer running transverse, a one inch thick layer running diagonally, and a top layer of three inch wood blocks.

The significance of this bridge lies in its architectural scarcity. As mentioned above, this particular truss is merely a modification of the basic Pratt configuration. It was developed

in the 1870's in response to the increasing size and weight of locomotives and their rolling stock /2/. The use of sub-ties stiffened the truss and allowed the use of shorter stringers thereby increasing the loading capacity of the deck. This particular truss type was used extensively by the Baltimore and Ohio Railroad and the relative scarcity of this particular truss type on roadways is apparently attributable to the fact that it was primarily used for railroad bridges /3/. It might therefore be expected that additional examples of this truss type might be found on railroads throughout the state, particularly those formerly of the Baltimore and Ohio Railroad. However, the Engineer of Bridges for the Chessie System (of which the B. & O. is now a part) stated that "to the best of [his] knowledge, there are no Baltimore Petit trusses left [on railroads] in Indiana" /4/. Research to date indicates only two other extant Baltimore trusses in Indiana and it is ironic that they are both located on roads, not railroads. One is in Martin County and one is in Hendricks County. These three remaining examples are by no means identical. Of the three, the Stoney Creek Bridge is the only truss with rivet connections and the nature of the structural members differs from bridge to bridge /5/.

The existing bridge is the third bridge to span Stoney Creek on Greenfield Pike. Apparently, the first structure was a wooden covered bridge /6, 7/, although the accepted chief reference work on covered bridges in Indiana /8/ does not mention such a structure. A perusal of the commissioner's records did not reveal

the date of construction, but it was prior to 1889, as the bridge was repaired in this year /9/, and at least before 1880, as a reference of this date /10/ indicates the existence of a toll house off one end of the bridge. (It was common practice to erect toll houses at stream crossings in these days in order to recoup the funds committed for construction of a bridge.) Indeed, this toll house survived until the mid 1970's when an adjacent upper class residential area bought the structure and demolished it, considering it an eyesore /11/. The road was formally referred to as the Noblesville-to-Greenfield Road and had a gravel surface.

This first bridge was replaced in 1914 by a second structure. The direction of the research carried out for this report was such that the reason for the demise of the covered bridge was not revealed. It would be logical to assume, however, that the extensive flooding of 1913 significantly damaged or possibly even washed out the first bridge. On April 8, 1913, the Board of Commissioners received bids for construction of a new bridge over Stoney Creek, in addition to four others. Four bids were submitted for the Stoney Creek bridge and the contract was awarded to the National Concrete Company of Marion County (Indianapolis), Indiana for \$5616 /12/. The contract indicated that the bridge was to be completed "on or before the 15th day of September, 1914" /13/. The Noblesville Daily Ledger reported that "the bridge will be made of concrete and it is said that it will be one of the prettiest structures in the county" /14/.

Although the county surveyor, Charles Wann, had drawn up plans and specifications for the bridge, it was ultimately built according to plans drawn up by the contractor /15/.

An old abutment still exists just east of the northern end of the existing bridge. It is not known whether this is the abutment for the covered or the concrete bridge. However, its position and orientation indicates that the first and perhaps the second bridge was built square to the stream instead of on a skew as the existing bridge. At one time, then, the northern approach had a slightly different alignment.

The second bridge served the county until Wednesday night of May 18, 1927, when a cloudburst dropped "approximately two and one-quarter inches of water...during three hours" /16/. By late Thursday afternoon, reports had reached County Highway Superintendent Frank Head that "a large crack was reported in the center of the [bridge] and the piers had settled about two feet" /17/. On Friday, the commissioners held a special session "on the call of Auditor [O.M.] Applegate for the purpose of going over the situation in the county in reference to the storm damage to the bridges and roads" /18/. Commissioners George F. Wolfgang, Charles E. Arnett and T.T. Bray toured the county to ascertain the extent of the damage. The Stoney Creek bridge seemed to be the most heavily damaged of the county's bridges and a repair estimate of \$6-7000 was reported. Although the money earmarked for bridge repair was exhausted, it was thought that the county was in a good position to carry out the anticipated repair work

since it had just received \$36,000 as its share of the state gasoline tax /19/. By Saturday, the commissioners had visited sixteen bridges in company with Superintendent Head and County Surveyor Edgar A. Baker, including the Stoney Creek Bridge. It was reported that "the surveyor is satisfied that an entirely new structure will have to replace the cement bridge over Stoney Creek...He says this bridge was ruined because the south pier, which has been washed out, was built so the current of the water would strike it at an angle. He believes the bridge would be standing today in the event the pier had been built so the current would have struck the pier directly. He is already figuring on a one span structure over this creek which will forever eliminate all pier trouble" /20/. The commissioners asked Baker to "hurry his work along"... "drafting plans for the repair of bridges and for new ones" /21/. He was assisted by Deputy County Surveyor James S. Shannon.

Nearly a week later, the full extent of the flood damage was known. A total of thirty-six bridges had been damaged and one-third of these would have to be replaced. The estimated cost of rectifying all of this damage was "at least \$60,000 and perhaps some higher" /22/. In a special session of the commissioners on Saturday, May 28, Surveyor Baker presented his estimate for the repair/replacement of twenty-eight structures damaged by the high water; \$103,000 /23/ and on the following Monday, the south half of the Stoney Creek bridge fell into the stream /24/. Although a record of Baker's presentation was not to be found in the commissioners' records, he presented a second estimate for the

replacement of sixteen bridges to the commissioners in a special session on Wednesday, June 1. The total estimate came to \$82,440, (this figure apparently did not include those bridges where only repair was needed) with replacement of the Stoney Creek bridge estimated at \$13,600. The commissioners declared an emergency and instructed "the County Council to convene in a Special Session to make the proper appropriations from the General Fund of the County" and since it was obvious that this would not suffice, they further asked "the Council to authorize Bond Issues or a Temporary Loan to meet this emergency" /25/.

On July 5, Surveyor Baker (addressed as an "Engineer") presented his plans for a new bridge over Stoney Creek, the steel truss which stands today. The commissioners approved the plans and ordered the Auditor, O.M. Applegate, "to issue a notice of their determination to issue bonds in the sum of \$13,600" /26/ to pay for the bridge. It was reported that "the commissioners and the surveyor are rushing [this structure] through quickly because [it is] needed, perhaps, more than any of the many bridges which were damaged by the high waters in the spring" /27/. On August 6, (in what must have been a special Saturday session) Auditor Applegate notified the commissioners that he had placed the proper notices of the county's intention to issue bonds and the commissioners in turn directed him to advertise the bridge for bids /28/. Bonds were to be issued for the amount of \$23,500, for construction of the Stoney Creek Bridge and one other bridge, and the county also took out a \$40,000 loan as the amount of money needed to repair or replace all of the damaged bridges far

exceeded the original estimates of May /29/.

On September 6, 1927, bids were received and read for the new Stoney Creek Bridge. Five bids were submitted and the contract was awarded to Marshall L. Oberholtzer for \$13,190 /30/. That same day the contract was drawn up and signed by all parties, with a construction deadline of December 1, 1927 /31/. The commissioners appointed T. Pardue as the inspector /32/. Subsequent perusal of the local newspapers failed to yield any further information on the bridge. Obviously, the bridge was completed, but whether or not by the deadline is unknown. The last entry in the commissioners' records is on March 31, 1928. Oberholtzer advises the commissioners that the bridge has been "repainted" and they allow him "his final claim in the amount of \$200" /33/. The March 31 entry would seem to indicate that he was granted an extension to the original deadline. The term "repainting" probably referred to the fact that the steel members had only a "shop coat" of paint. After assembly a final coat was probably applied as the final item of construction.

Throughout its existence, Greenfield Pike has been the principal artery in providing access between Noblesville and points to the southeast. The road had a gravel surface as early as 1880 /10/. In 1938, the Indiana State Highway Commission (now the Indiana Department of Highways) took the road into its state highway system as State Road 238 /34/. As designated, this route ran between Noblesville and Fortville (see page 14). It is not known

when the road or the deck of the Stoney Creek Bridge was paved.

In the 1940's, the ISHC apparently had plans to upgrade State Road 238, since it was surveyed in the summer of 1946 /35/.

The transit book indicates that many of the dangerous curves were to be taken out and that north of Stoney Creek, the road was to curve and head due west and intersect Allisonville Road, which at that time was State Road 37 (see page 15).

Included in this realignment was a new structure over Stoney Creek and it would have been situated just east of the existing truss. These plans never came to fruition.

The IDOH Greenfield District's maintenance division repaired the bridge in 1955, but there are no records of the extent or type of repair work /36/. The portion of the road westward from State Road 37 (see page 15) was relinquished to local control on January 28, 1970. The road was renamed Greenfield Pike.

The first comprehensive inspection of record /37/ took place in April, 1975 /38/. The structure had substantially deteriorated to the point where posting a five ton load limit was recommended. After a reinspection in June, 1977, it was recommended that "this structure is in critical condition and should be closed and replaced. It would not be feasible to repair due to the extent of its condition" /39/. Although the commissioners chose to keep the bridge open, in September of 1977, they hired a local consultant to begin developing plans for a replacement structure /40/. At this time, it was the intention of the county to replace

the Stoney Creek Bridge using their own funds. In January of 1980, however, the county decided to apply for federal funds and signed a supplemental agreement with the same consultant to this end /41/. The bridge was declared eligible for the National Register of Historic Places (pursuant to 36 CFR Part 63.3) on August 8, 1980. After a reinspection, the Stoney Creek Bridge was closed to all automobile, bicycle and pedestrian traffic on March 12, 1981.

It is the intention of the commissioners to remove and demolish the existing truss in order to construct a new replacement structure and improve the approaches. This action has been approved by the Advisory Council on Historic Preservation. A Memorandum of Agreement has been drafted and signed by the Council, the Federal Highway Administration, the Indiana Department of Highways, the State Historic Preservation Officer, and the commissioners. This report is submitted in accordance with a stipulation in that Memorandum, in compliance with Executive Order 11593, Section 2(c).

FOOTNOTES

- /1/ Comp, T. Allan and Donald Jackson. "Bridge Truss Types: A Guide to Dating and Identifying". American Association for State and Local Highway Technical Leaflet 95, History News, XXXI1 (May, 1978), 6.
- /2/ Ibid. p. 5.
- /3/ Ibid.
- /4/ Personal communication with Mr. W.D. Wood of the Chessie System on April 15, 1981.
- /5/ Written correspondence dated October 6, 1980 from James L. Cooper, Professor of History at DePauw University, Greencastle, Indiana.
- /6/ Personal communication with Mr. Kent Ward, Hamilton County Surveyor and member of the Hamilton County Historical Society Board of Directors on April 7, 1982.
- /7/ Personal communication with Mr. Joe Roberts of the Roberts and Randall Funeral Home in Noblesville on April 7, 1982. Mr. Roberts has an extensive collection of old photographs, including postcards of a covered bridge over Stoney Creek on Greenfield Pike.
- /8/ George E. Gould, Indiana Covered Bridges Thru the Years. Indianapolis: Indiana Covered Bridge Society, Inc., 1977. pp. 34 and 52.
- /9/ Records of the Hamilton County Commissioners. August, 1889 through June, 1890, pp. 260 and 285.
- /10/ History of Hamilton County, Indiana. Chicago: Kingman Brothers, 1880. p. 82a (map insert).
- /11/ Mr. Kent Ward, op.cit.
- /12/ Records of the Hamilton County Commissioners. XXIV (January, 1913 through December, 1913) p. 90.
- /13/ Ibid. p. 94.
- /14/ "Contracts Awarded: Cement Bridge Will Be Built Over Stoney Creek on Greenfield Pike". The Noblesville Daily Ledger, April 9, 1913, p. 1.

- /15/ Title not recorded, The Noblesville Daily Ledger, May 8, 1913, p.1.
- /16/ "Heaviest Rain in this Locality in Long Time", The Noblesville Daily Ledger, May 19, 1927, p.1.
- /17/ "Great Damage to Roads, Bridges and Culverts", The Noblesville Daily Ledger, May 19, 1927, p.1.
- /18/ "Commissioners Inspect Storm Damage in County", The Noblesville Daily Ledger, May 20, 1927, p.1.
- /19/ "Plenty of Money Available to Repair Bridges", The Noblesville Daily Ledger, May 20, 1927, p.1.
- /20/ "Commissioners on Another Tour of Inspection", The Noblesville Daily Ledger, May 21, 1927, p.1.
- /21/ Ibid.
- /22/ "Water Damaged Thirty-Six Bridges", The Noblesville Daily Ledger, May 26, 1927, p.2.
- /23/ Title not recorded, The Noblesville Daily Ledger, May 31, 1927, p.1.
- /24/ Title not recorded, The Noblesville Daily Ledger, May 30, 1927, p.1.
- /25/ Records of the Hamilton County Commissioners. XXIX (May, 1927 through January, 1931) p.20.
- /26/ Ibid. p.49.
- /27/ "Commissioners Meet in Regular July Session", The Noblesville Daily Ledger, July 5, 1927, p.1.
- /28/ Records of the Hamilton County Commissioners, op.cit., p.103.
- /29/ Title not recorded, The Noblesville Daily Ledger, August 8, 1927, p.1.
- /30/ Records of the Hamilton County Commissioners, op.cit., p.120.
- /31/ Ibid. p.111.
- /32/ Ibid. p.124.
- /33/ Ibid. p.282.

- /34/ Letter from Mr. Walter H. Frick, Assistant Chief Engineer of Highway Development, Indiana State Highway Commission (now the Indiana Department of Highways) dated June 13, 1980.
- /35/ Indiana State Highway Commission. Project No. 794. State Road 238. Transit Book No. 6406T.
- /36/ Letter from Mr. S.R. Yoder, Chief, Division of Design, ISHC, dated June 11, 1980.
- /37/ In accordance with the National Bridge Inspection Standards established by the Federal-Aid Highway Act of 1968.
- /38/ Beam, Longest & Neff, Inc., Consulting Engineers, Indianapolis, Indiana. Hamilton County Bridge Inspection Records on file.
- /39/ Hamilton County, Indiana. Bridge Inventory Rating and Safety Inspection of 1977. A copy is on file in the Division of Bridge Design, Indiana Department of Highways, Indianapolis, Indiana.
- /40/ Records of the Hamilton County Commissioners. XL p.3.
- /41/ Records of the Hamilton County Commissioners. XL1 p.104.

ADDITIONAL REFERENCES NOT CITED

- (1) - Campbell, Frank S. The Story of Hamilton County, Indiana. Noblesville: Hudler Press, Inc., 1962.
- (2) Foland, John A. Remembrances. Noblesville: Rowland Printing Co., Inc., 1976.
- (3) Haines, John F. History of Hamilton County, Indiana. Indianapolis: B.F. Brown and Co., Inc., 1915.
- (4) Noblesville Daily Ledger. Atlas and Plat Book of Hamilton County, Indiana. Noblesville: The Enterprise Printing and Publishing Co., 1922.



PROJECT M-P244()
HAMILTON COUNTY BRIDGE #218

FIGURE 1

Project Location